

# *Shadowing*

## Chronic Wasting Disease

By Ron Wilson

More wild North Dakota deer and elk than ever were tested last winter by scientists looking for a fatal brain malady that has infected animals in bordering states and elsewhere.

Samples from 470 deer and 25 elk killed during the 2002 North Dakota hunting season tested negative for chronic wasting disease. In February, producers in the state completed five years of mandatory surveillance on farmed elk and deer, also finding no signs of the disease.

Good news all around.

But it doesn't end there, as North Dakota Game and Fish Department wildlife managers will continue to scrutinize the state's wild elk, whitetail and mule deer for CWD.

"We're not just in this for a few years," said Jacquie Gerads, Department wildlife disease biologist. "We are concerned about the overall health of North Dakota's wildlife."

The Department's long-term goal is to sample wild deer and elk from all over the state, something that could likely take several years, Gerads said.

In 2002, Department biologists removed lymph nodes, tonsils and brain stems for CWD testing from hunter-harvested deer and elk, sending samples to a laboratory in Wyoming. The majority of deer used in testing were from hunting units in eastern and western North Dakota.

"Last year, we obtained our deer from participating meat processors within selected units," Gerads said. "This year, we might try adding drop-off stations in order to collect even more samples, and we will be expanding our sample areas."

The number of hunter-killed animals tested from the 2002 season was small. But it was a start to work out the bugs in the Department's sampling procedure.

"To be able to detect a low prevalence of CWD with high confidence, we have to

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test more deer per hunting unit,” Gerads said.

The Department will also continue its targeted surveillance by collecting and testing suspect deer and elk, including road kills, Gerads said.

“We ask if anyone from the public sees a deer or elk showing signs consistent with CWD to call the Game and Fish as soon as possible ... don’t even wait a day or two,” she said. “Once we get the information, we’ll investigate, put the animal down if it’s warranted, and take a sample for testing.”

To make a report to the Game and Fish, call 328-6300. Note the location and as much information as possible about the animal and situation. Arrangements will be made to investigate the report.

Chronic wasting disease is a slow-progressing disease, scientists say. It attacks the brains of infected deer and elk, causing animals to become emaciated – not just a little skinny. Other outward signs include drooling and a droopy head. Scientists warn that many of these signs are associated with other diseases as well, not just CWD.

From 1996-2001, Gerads said only 23 suspect animals were reported across the state. In 2002 alone, there were 44. She attributes the rise to a better-informed public, not an increase in “sick” deer. “The word on CWD has gotten out to the public,” she said. “The more people know, the better decisions they can make about CWD, about hunting and about eating venison. There is still a lot of misconception out there about CWD.”

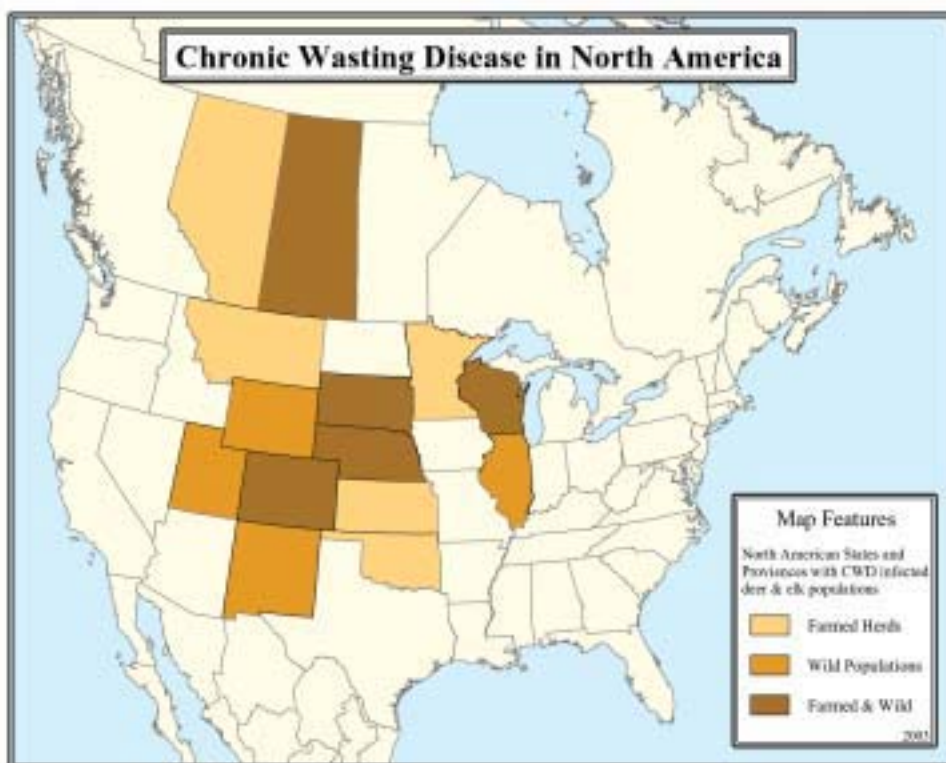
CWD has been found in farmed or wild animals in parts of Wisconsin, Montana, Minnesota, South Dakota, and elsewhere. To date, scientists have not diagnosed CWD in wild or farmed deer and elk in North Dakota.

“Is it only a matter of time?” Gerads said. “I don’t know. If so, I can’t tell you what that time frame is.”

Scientists say CWD is in the same family as bovine spongiform encephalopathy, or mad cow disease. They say the strain of misshapen protein, called a prion, that appears to cause CWD, is different from the one that causes mad cow disease.

Just how the disease spreads remains somewhat of a mystery. There is some evidence that suggests infected deer and elk possibly transmit the disease through close animal-to-animal contact, or from mother to offspring.

There is no scientific evidence that CWD can be transmitted to cattle or people, but research projects are on-going to answer some of the unknowns about transmission.



Fortunately, potential for animal-to-animal contact in North Dakota is lower than other states. In parts of Wisconsin, where the disease has been identified, there are anywhere from 38-100 deer per square mile, while in North Dakota the average is more like 2-6 deer per square mile.

“That’s one of the advantages in North Dakota – lower deer densities and less deer-to-deer contact,” Gerads said.

Still, the threat of chronic wasting disease in North Dakota is real. “Deer don’t know boundaries,” Gerads said in reference to animals wandering into North Dakota from other states where CWD has been confirmed.

Randy Kreil, Department wildlife division chief, said Game and Fish is prepared if the day comes. “If we find it, the first thing we need to do is determine how prevalent it is in the population, or area,” he said. “We’ll have to intensively sample in and adjacent to the area where CWD is identified.”

In an effort to be more efficient and cost effective if CWD is ever discovered, the Department is developing a mobile lab to help collect and process samples from wild animals anywhere in the state.

“We can’t discount that we may be dealing with CWD in the future,” Kreil said. “That being said, we believe the extensive amount of informational and educational efforts we’ve been working on, and continue to work on, will pay dividends. We believe people will understand what CWD is and what it isn’t, and our hunters will have the proper

*North Dakota is almost entirely surrounded by states and provinces with confirmed cases of CWD in farmed or wild elk or deer. To date, the disease has not been found in North Dakota.*

perspective and their interest in deer hunting will remain strong.”

In South Dakota, for instance, despite the discovery of about a half-dozen infected animals, interest in hunting has remained, Kreil said. The same holds true in the areas of Wyoming and Colorado where CWD has been documented.

“If we find a positive in North Dakota, we will tell people,” he said. “We will keep the public informed every step of the way. An informed public is an important aspect of CWD management.”

Thankfully, the disease is not one that spreads like wildfire through a population. Even in states that do have it, the brain malady is not running rampant, Gerads said.

In Minnesota, for example, CWD was found in a farmed elk population prior to

the state’s deer season in 2002, but that’s it. Scientists in Minnesota then sampled more than 5,000 deer from the 2002 deer season and no positives were found in the wild animals, Gerads said.

Officials in some states are taking what they believe to be necessary safeguards to prevent the disease from taking hold within their borders. Montana, for instance, has outlawed game ranching, while New York has barred the import of captive deer or elk by zoos and hunting preserves.

“At this point, the farmed deer and elk industry in North Dakota has a good track record of CWD testing and herd management,” Kreil said. “Other states are envious of our working relationship with the industry and their willingness to self-regulate.”

In 2002, there were about 125 licensed

## Roadblock to Chronic Wasting Disease

By Ron Wilson

***Carcass importation restrictions are necessary to prevent certain body parts from entering North Dakota, reducing the likelihood of CWD being introduced in the state that way, said Randy Kreil, Department wildlife division chief.***

The North Dakota Game and Fish Department can now employ annual restrictions on the import of whole deer or elk carcasses into North Dakota from states or provinces with documented cases of chronic wasting disease.

This responsibility is part of a new law adopted by state legislators in 2003. The law also allows North Dakota’s governor to declare an animal health emergency if CWD, or any other threatening animal disease, is found in the state. Plus, the governor can authorize Department wildlife managers to sample, reduce, or eliminate wild deer or elk from a particular area to prevent the spread of CWD.

In 2002, Governor John Hoeven did issue an executive order to prohibit import of whole deer and elk carcasses from specific areas within states or provinces with documented cases of CWD, but the order was only temporary. The new law gives the governor authority, through proclamation, to set annual importation rules.

Annual restrictions, Department wildlife managers say, will allow Game and Fish to adjust regulations as more is

*Right: Jacquie Gerads, Department wildlife disease biologist, works with one of nearly 500 hunter-harvested deer that were used for chronic wasting disease testing.*

*Below: The lymph nodes, tonsils and brain stems of deer taken during the 2002 deer season in North Dakota were packaged and sent to a laboratory in Wyoming and tested for chronic wasting disease.*



elk and deer farming operations in North Dakota.

Chronic wasting disease is relatively rare, scientists say. In Colorado and Wyoming, CWD infects about 1-13 percent of the deer and less than 1 percent of wild elk in a small core area where the disease has been found.

Still, the number of animals diagnosed with CWD has gone up in recent years, most likely due to the spread of knowledge about the disease and increased surveillance.

"Once you find that initial positive, there is a chance to eradicate the disease if you get on it early before it becomes established," Gerads said.

There is no treatment or vaccine for deer or elk that have CWD. The practice now is to trim animal numbers in areas

where the disease has been chronicled, and remove those animals from the population that display clinical signs to help prevent spread of disease or infection.

How wildlife managers deal with chronic wasting disease could change anytime, however, as scientists continue to study the disorder that was first diagnosed in a Colorado elk research facility in 1967.

"With the research being done nationwide, we may learn something tomorrow about CWD that could change our entire plan," Gerads said.

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learned about the disease, and if new areas in previously unaffected states and provinces are discovered.

Carcass importation restrictions are necessary to prevent certain body parts from entering North Dakota, reducing the likelihood of CWD being introduced in the state that way, said Randy Kreil, Department wildlife division chief.

"It's important to note that carcass importation restrictions do not apply to those portions of the carcass not associated with the central nervous system," Kreil said. "This means a North Dakota hunter may bring back parts of deer or elk such as packaged meat, quarters with no part of the spine, boned-out meat, hides and antlers with no meat or tissue attached."

Certain parts of the animal, including the brain and spinal cord, are known to contain the abnormal proteins, or prions, that cause CWD.

The need for import restrictions was underlined in 2002 when a North Dakota hunter unknowingly returned home with a CWD infected bull elk shot in an area of Colorado known to have the disease.

The potential introduction of CWD into the state in that instance was prevented by quick response by the hunter and several agencies in North Dakota.

"Precautions and safeguards are necessary to prevent the disease from entering North Dakota and to manage the disease should it ever be found in our state," Kreil said.

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